

ABSTRACT

In the film deposition method of the present invention, an organometallic fluid, which has an organic metal such as a copper diketone as its main component, and which precipitates film deposition material through a pyrolytic decomposed reaction, is first prepared; and the organometallic fluid is then applied onto a semiconductor wafer at a certain temperature within the non-reactive range of the organic metal. Afterwards, the wafer is heated to a predetermined temperature, the organic metal within the organometallic fluid that is applied onto the wafer is pyrolytically decomposed, and film is formed on the wafer. With this method, since application is performed at a temperature within the non-reactive range of the organic metal, deposition of the film does not occur, allowing uniform and homogenous application to be performed. Also, since pyrolytic decomposition is performed separately in a later process, a stable reaction may be assured, so that a film of uniform thickness and quality may be deposited.